

OPERACIONES CON FRACCIONES**Ficha 1 Nivel 2**

Recuerda el orden de operaciones:

1. Resolución de paréntesis y corchetes
2. Multiplicaciones y divisiones operando de izquierda a derecha
3. Sumas y restas.

Calcula y simplifica:

$$1) \frac{3}{4} - \frac{1}{2} \left[-\frac{2}{5} + \left(4 - \frac{6}{10} \right) \right]$$

$$2) \left(\frac{2}{3} - 2 \right) \cdot \left[\frac{1}{3} - \frac{1}{2} : \left(\frac{1}{2} + \frac{1}{4} \right) \right]$$

$$3) (-2) : \left[\frac{2}{5} - \frac{1}{2} \cdot \left(\frac{3}{2} - 2 \right) \right]$$

$$4) \left(\frac{1}{5} \cdot \frac{2}{3} - \frac{2}{3} \right) : \frac{1}{4} - \frac{3}{2} \left(1 - \frac{1}{5} \right)$$

$$5) \left(\frac{1}{3} - \frac{1}{2} \right) : \left(\frac{1}{2} + \frac{1}{4} \right) + 4 - 5 \left(2 : \frac{5}{4} - 1 \right)$$

SOLUCIONES

$$(4 - \frac{6}{10}) = \frac{40-6}{10} = \frac{34}{10} = \frac{17}{5}; \quad \left[-\frac{2}{5} + \frac{17}{5} \right] = \frac{15}{5} = 3;$$

1) $\frac{3}{4} - \frac{1}{2} \cdot (3) = \frac{3}{4} - \frac{3}{2} = \frac{3-6}{4} = -\frac{3}{4}$

$$2) \left(\frac{2}{3} - 2 \right) = \frac{2-6}{3} = -\frac{4}{3}; \quad \left(\frac{1}{2} + \frac{1}{4} \right) = \frac{2+1}{4} = \frac{3}{4}; \quad \frac{1}{2} : \frac{3}{4} = \frac{4}{6} = \frac{2}{3}; \quad \left[\frac{1}{3} - \frac{2}{3} \right] = -\frac{1}{3}$$

$$-\frac{4}{3} \left[-\frac{1}{3} \right] = \frac{4}{9}$$

$$3) \left(\frac{3}{2} - 2 \right) = \frac{3-4}{2} = -\frac{1}{2}; \quad \frac{1}{2} \left(-\frac{1}{2} \right) = -\frac{1}{4}; \quad \left[\frac{2}{5} - \left(-\frac{1}{4} \right) \right] = \frac{2}{5} + \frac{1}{4} = \frac{8+5}{20} = \frac{13}{20}$$

$$(-2) : \frac{13}{20} = -\frac{40}{13}$$

4

$$\left(\frac{1}{5} \cdot \frac{2}{3} - \frac{2}{3} \right) = \frac{2}{15} - \frac{2}{3} = \frac{2-10}{15} = -\frac{8}{15}; \quad -\frac{8}{15} : \frac{1}{4} = -\frac{32}{15}; \quad \left(1 - \frac{1}{5} \right) = \frac{5-1}{5} = \frac{4}{5}; \quad \frac{3}{2} \cdot \frac{4}{5} = \frac{12}{10} = \frac{6}{5}$$

$$-\frac{32}{15} - \frac{6}{5} = \frac{-32-18}{15} = \frac{-50}{15} = -\frac{10}{3}$$

5

$$\left(\frac{1}{3} - \frac{1}{2} \right) = \frac{2-3}{6} = -\frac{1}{6}; \quad \left(\frac{1}{2} + \frac{1}{4} \right) = \frac{2+1}{4} = \frac{3}{4}; \quad -\frac{1}{6} : \frac{3}{4} = -\frac{4}{18} = -\frac{2}{9}; \quad \left(2 : \frac{5}{4} - 1 \right) = \frac{8}{5} - 1 = \frac{8-5}{5} = \frac{3}{5}$$

$$-\frac{2}{9} + 4 - 5 \cdot \frac{3}{5} = -\frac{2}{9} + 4 - 3 = -\frac{2}{9} + 1 = \frac{-2+9}{9} = \frac{7}{9}$$